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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/734,883
Filing Date: December 13, 2000
Appellant(s): DEAN ET AL.

Paul A. Harrity

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 20 Jun. 2008 appealing from the Office action mailed 24 Jan. 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Armstrong et al. "WebWatcher: A Learning Apprentice for the World Wide Web" AAAI Spring Symposium on Information Gathering (March 1995), pp 1-7

6012053	Pant et al.	6-1997
6591261 B1	Arthurs	6-1999
6285999 B1	Page	01-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39, 41, 44-46, 52, 53, 56-61 and 64-66 are rejected under 35

U.S.C. 103(a) as being unpatentable over Armstrong et al. (NPL: "WebWatcher: A Learning Apprentice for the World Wide Web", Publish date: 1995) (hereinafter 'Armstrong') in view of Pant et al. (Patent No.: 6,012,053; Filed Jun. 23, 1997) (hereinafter 'Pant').

In regards to independent claim 39, Armstrong discloses a computer-implemented method comprising:

identifying a document that is stored on a server in a network and that

includes links to linked documents (section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.);

determining scores for a plurality of the links in the identified document (section 2; Fig. 4; Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.);

providing the modified document to a user (section 2; Fig. 4; Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge, Then highlights the most promising links and sends this modified copy of the return page to the user.).

Armstrong does not expressly disclose *modifying the identified document based on the determined scores, where the modifying includes:*

*reordering at least two of the links based on the determined scores, or
sorting at least two of the links based on the determined scores; and*

However, Pant teaches *modifying the identified document based on the determined scores, where the modifying includes:*

*reordering at least two of the links based on the determined scores, or
sorting at least two of the links based on the determined scores (col. 2, lines 25-43; col. 3, lines 56-63; Pant teaches a sorting module which sorts the search results in an order ranked according to their relevance score.);*

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claims 41, 53 and 61, Armstrong discloses *the wherein the links in the identified document point to a plurality of linked documents*

(section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.);

wherein determining the scores includes:

for each of the linked documents, determining scores for one or more linking documents that contain links to the linked document (section 2, para. 4 &6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. Armstrong also discloses the WebWatcher could be made to search several pages ahead to improve the quality of the advice it provides. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

determining a score for each of the linked documents based on the scores of the one or more linking documents (section 2; Fig. 4; Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

associating the determined scores for the linked documents with the corresponding links in the identified document (section 2, para. 4 &6; Armstrong discloses prefetching web pages and beginning the process to determine their

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most promising outgoing hyperlink. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

In regards to dependent claims 44, 56 and 64, Armstrong discloses *the method wherein the links in the identified document point to a plurality of linked documents;*

wherein determining the scores includes:

receiving input from the user (section 2, para. 2; Armstrong discloses the WeWatcher program allows the user to identify the type of information he seeks.).

determining a score for each of the linked documents based on the received input (section 2 & 4; Fig. 4; Armstrong discloses the WeWatcher program allows the user to identify the type of information he seeks. Armstrong also discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

associating the determined scores for the linked documents with the corresponding links in the identified document associating the determined scores

for the linked documents with the corresponding links in the identified document (section 2, para. 4 & 6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

In regards to dependent claims 45, 57 and 65, Armstrong discloses *the method of wherein determining the score for each of the linked documents includes:*

for each of the linked documents, comparing one or more words of the received input with a content of the linked document (section 3.2; Armstrong discloses comparing words entered by the user with a content of the linked document.).

determining a score for the linked document based on a degree of match between the one or more words and the content of the linked document (section 3.2; Armstrong discloses comparing words entered by the user with a content of the linked document. Words are first gathered by every distinct word that occur over the training set, then ranked according to their mutual information. Using the broadest reasonable interpretation the Examiner concludes ranked one or more words according to their the mutual information to be analogous with determining a score for the linked document based on a degree of match.).

In regards to dependent claim 46, Armstrong discloses *the method of claim 39, wherein modifying the identified document includes:*

comparing the determined scores to a threshold (section 4.2; Armstrong discloses experimenting with adding a threshold on the confidence of the advice from the WebWatcher. Using the broadest reasonable interpretation the Examiner concludes Armstrong's experiment to include but not limited to comparing the determined scores to a threshold.).

Armstrong does not expressly disclose *deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold.*

Pant teaches *deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold* (col. 13, lines 9-31; Pant teaches results based on a score and a relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs. Using the broadest reasonable interpretation, the Examiner concludes the presentation of results differs to include but not be limited to deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to independent claim 52, Armstrong discloses *a computer-implemented method, comprising:*

identifying a document that is stored on a server in a network and that includes links to linked documents (section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.);

determining scores for a plurality of the links in the identified document (section 2, para. 4 & 6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. Armstrong also discloses the WebWatcher could be made to search several pages ahead to improve the quality of the advice it provides. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

comparing the determined scores to a threshold (section 4.2; Armstrong discloses experimenting with adding a threshold on the confidence of the advice from the WebWatcher. Using the broadest reasonable interpretation the Examiner concludes

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Armstrong's experiment to include but not limited to comparing the determined scores to a threshold.).

Armstrong does not expressly disclose *deleting one of the plurality of links from the identified document when the score for the one of the links falls below the threshold;*

Pant teaches *deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold* (col. 13, lines 9-31; Pant teaches results based on a score and a relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs. Using the broadest reasonable interpretation, the Examiner concludes the presentation of results differs to include but not be limited to deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold.).

providing, to a user, the identified document without the deleted link. (col. 13, lines 9-31).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 58, Armstrong discloses *the method of claim 52, further comprising:*

determining additional information regarding the linked document pointed to by the one of the plurality of links (section 3.2)

providing the identified document with the additional information to the user (section 2; Fig. 4; Armstrong discloses sending a modified copy of the return page to the user.).

Armstrong does not expressly disclose *determining additional information regarding a linked document pointed to by the one of the plurality of links when the score for the one of the links does not fall below the threshold;*

Pant teaches *determining the score for the one of the links does not fall below the threshold* (col. 13, lines 9-31; Pant teaches results based on a score and a relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs. Using the broadest reasonable interpretation, the Examiner concludes Pant teaches the concept of determining that a score for one of the plurality of links is greater than the threshold.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the

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user-specified relevance factors to allow the user to control how the search results are ordered and presented (col. 1, lines 53-56).

In regards to independent claim 59, Armstrong discloses *a system, comprising:*

means for identifying a document based on an address associated with the document, the document including links that point to linked documents (section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.);

means for determining scores for a plurality of the links in the identified document (section 2, para. 4 & 6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. Armstrong also discloses the WebWatcher could be made to search several pages ahead to improve the quality of the advice it provides. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which documents are strongly recommended.).

means for comparing the determined scores to a threshold (section 4.2; Armstrong discloses experimenting with adding a threshold on the confidence of the advice from the WebWatcher. Using the broadest reasonable interpretation the Examiner concludes Armstrong's experiment to include but not limited to comparing the determined scores to a threshold.).

means for determining additional information regarding the linked document pointed to by the one of the plurality of links (section 3.2).

means for providing the identified document with the additional information to a user (section 2; Fig. 4; Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge, Then highlights the most promising links and sends this modified copy of the return page to the user.).

Armstrong does not expressly disclose means for determining that a score for one of the plurality of links is greater than the threshold.

Pant teaches means for determining that a score for one of the plurality of links is greater than the threshold (col. 13, lines 9-31; Pant teaches results based on a score and a relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs. Using the broadest reasonable interpretation, the Examiner concludes Pant teaches the concept of determining that a score for one of the plurality of links is greater than the threshold.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the

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user-specified relevance factors to allow the user to control how the search results are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 60, Armstrong discloses *the system of claim 59, further comprising:*

means for determining that a score for another one of the plurality of links is not greater than the threshold (section 2, para. 4 & 6; section 4.2; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. Armstrong also discloses the WebWatcher could be made to search several pages ahead to improve the quality of the advice it provides. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which documents are strongly recommended. Armstrong discloses experimenting with adding a threshold on the confidence of the advice from the WebWatcher. Using the broadest reasonable interpretation the Examiner concludes Armstrong's experiment to include but not limited to comparing the determined scores to a threshold.).

Armstrong does not expressly disclose *means for deleting the other one of the plurality of links from the identified document;*

means for providing, to a user, the identified document without the deleted link;

Pant teaches *means for deleting the other one of the plurality of links from the identified document* (col. 13, lines 9-31; Pant teaches results based on a score and a

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relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs. Using the broadest reasonable interpretation, the Examiner concludes the presentation of results differs to include but not be limited to deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold.).

means for providing, to a user, the identified document without the deleted link (col. 13, lines 9-31).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 66, Armstrong does not expressly disclose *the system of claim 59, wherein the additional information includes an excerpt from the linked document, a size of the linked document, or a date of last modification of the linked document.*

However, Pant teaches *the additional information includes an excerpt from the linked document, a size of the linked document, or a date of last modification of the linked document* (col. 6, line 21-32; Pant teaches a relevance factor is a value associated with an attribute which an item in a database may have. For example

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whether a document contains a particular word is an attribute of a document, date, size and other features of a document may be attributes. It has been established and is well known in the art that these features are typically provided to the end-user as additional information of linked documents.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search results are ordered and presented (col. 1, lines 53-56).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Claims 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arthurs (Patent No.: US 6,591,261 B1; Effective Filing Date: Jun. 21, 1999) in view of Pant et al. (Patent No.: 6,012,053; Filed Jun. 23, 1997) (hereinafter 'Pant').

In regards to independent claim 47, Authers discloses *a computer-implemented method, comprising:*

receiving a search query (col. 6, lines 43-47; Authers discloses through a computer system, the end-user typically visits a search engine site residing on a server computer system to enter a search query. Thus receiving input from the user.);

providing a list of search results in response to the search query (col. 4, lines 1-24; col. 7, line 4-col. 8, line 54; Arthurs disclose providing a list of search results in response to the search query.);

receiving selection of one of the search results in the list of search results (col. 4, lines 1-24; col. 7, line 4-col. 8, line 54; Arthurs discloses the user selects a displayed web site by clicking on a link.);

identifying links in a document corresponding to the selected search result (col. 4, lines 1-24; col. 7, line 4-col. 8, line 54; Arthurs discloses the user selects a displayed web site by clicking on a link adjacent to that web site via the end-user computer system mouse.);

determining a score for one of the links based on a degree of match between the search query and a content of a linked document pointed to by the one of the links (col. 6, line 19-col. 7, line 3; Arthurs disclose the search results are ranked in accordance to their score.);

Arthurs does not expressly disclose *modifying the document based on the determined score for the one of the links* ;

providing the modified document.

However, Pant teaches *modifying the document based on the determined score for the one of the links* (col. 2, lines 25-43; col. 3, lines 56-63; Pant teaches a sorting module which sorts the search results in an order ranked according to their relevance score.);

providing the modified document (col. 2, lines 25-43; col. 3, lines 56-63; Pant teaches sorted/modified results are provided to the user.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Arthurs with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 48, Arthurs disclose *the method of claim 47, wherein determining the score for the one of the links includes determining scores for each of a plurality of the links in the document based on a degree of match between the search query and a content of a linked document pointed to by the link* (col. 6, line 19-col. 7, line 3; Arthurs disclose the search results are ranked in accordance to their score.);

Arthurs does not expressly disclose *wherein modifying the document includes: reordering the links based on the determined scores.*

However, Pant teaches *modifying wherein modifying the document includes: reordering the links based on the determined scores* (col. 2, lines 25-43; col. 3, lines 56-63; Pant teaches a sorting module which sorts the search results in an order ranked according to their relevance score.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Arthurs with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 49, Arthurs does not expressly disclose *the method of claim 48, wherein reordering the links includes: sorting the links based on the determined scores.*

However, Pant teaches *reordering the links includes: sorting the links based on the determined scores* (col. 2, lines 25-43; col. 3, lines 56-63; Pant teaches a sorting module which sorts the search results in an order ranked according to their relevance score.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Arthurs with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 50, Arthurs does not expressly disclose *the method of claim 47, wherein modifying the document includes:*

changing at least one visual characteristic of the one of the links within the document based on the determined score.

However, Pant teaches *changing at least one visual characteristic of the one of the links within the document based on the determined score* (col. 6, line 50-col. 7, line 50; Pant teaches a sorting module which sorts/displays the search results based on different relevance factors. The Examiners using the broadest interpretation of a visual *characteristic of the one of the links within the document based on the determined score* to include placement of the link within the search result. Thus Pant teaches or suggests changing the visual characteristic of one of the links.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Arthurs with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the

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user-specified relevance factors to allow the user to control how the search results are ordered and presented (col. 1, lines 53-56).

In regards to dependent claim 51, Arthurs discloses *the method of claim 47, further comprising:*

comparing the determined score to a threshold (col.2, lines14-23; col. 6, lines 5-16; col. 10, lines 34-36; Arthurs teaches or suggest the concept of comparing the determined scores to a threshold.);

deleting the one of the links when the determined score for the one of the links falls below a threshold (col.2, lines14-23; col. 6, lines 5-16; col. 10, lines 34-36; Arthurs teaches or suggest the concept of comparing the determined scores to a threshold. Arthurs disclose the association database may utilize any threshold values to remove data from the database. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Arthurs teachings in deleting one of the links from the identified document when the determined score for the one of the links falls below the threshold.).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.

See, MPEP 2123.

Claims 42, 43, 54, 55, 62 and 63, are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong in view of Pant further in view of Page (Patent No.: 6,285,999 B1; Filed Jan. 09, 1998)

In regards to dependent claims 42, 54 and 62, Armstrong discloses *the method wherein the links in the identified document point to a plurality of linked documents* (section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.);

associating the determined scores for the linked documents with the corresponding links in the identified document (section 2, para. 4 & 6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

Armstrong in view of Pant does not expressly disclose *wherein determining the scores includes:*

determining a clickthrough rate for each of the linked documents.

determining a score for each of the linked documents based on the determined clickthrough rates.

However, Page teaches *determining a clickthrough rate for each of the linked documents; determining a score for each of the linked documents based on the determined clickthrough rates* (Page teaches determining the clickthrough rate for each of the linked documents based on determined clickthrough rates and associating the determined scores for the linked documents with the corresponding entries in the document. The examiner interprets the user of clickthrough rate in the claim as equivalent to determining the popularity or how many hits the documents has had by other links linking to the document and determining how important that document is. For example, Page discloses node ranking in a linked database to assign a rank to each document in the database where the document rank is a measure of the importance of the document based on the anchor text of backlinks to the document (regardless of its content)(col 2, lines 40-65).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Armstrong in view of Pant to include determining importance, scoring and associating that with an entry in the document as taught by Page, providing the benefit of a simple method for determining the importance of a document by counting its number of citations (col. 2, lines 20-35).

In regards to dependent claims 43, 55 and 63, Armstrong discloses *the method wherein the links in the identified document point to a plurality of linked*

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documents (section 2; Fig. 4; Armstrong discloses identifying a web page/document that contains links to other web pages/documents.).

associating the determined scores for the linked documents with the corresponding links in the identified document (section 2, para. 4 & 6; Armstrong discloses prefetching web pages and beginning the process to determine their most promising outgoing hyperlink. The Examiner concludes the WebWatcher program would implicitly determine scores for a plurality of the links in the identified document in order to determine which document are strongly recommended.).

Armstrong in view of Pant does not expressly disclose *wherein determining the scores includes:*

determining a measure of popularity associated with each of the linked documents,

determining a score for each of the linked documents based on the determined measure of popularity.

Page teaches *determining a measure of popularity associated with each of the linked documents, determining a score for each of the linked documents based on the determined measure of popularity* (Page teaches determining the clickthrough rate for each of the linked documents based on determined clickthrough rates and associating the determined scores for the linked documents with the corresponding entries in the document. The examiner interprets the user of clickthrough rate in the claim as equivalent to determining the popularity or how many hits the documents has had by

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other links linking to the document and determining how important that document is.

For example, Page discloses node ranking in a linked database to assign a rank to each document in the database where the document rank is a measure of the importance of the document based on the anchor text of backlinks to the document (regardless of its content)(col 2, lines 40-65).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Armstrong in view of Pant to include determining importance, scoring and associating that with an entry in the document as taught by Page, providing the benefit of a simple method for determining the importance of a document by counting its number of citations (col. 2, lines 20-35).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.

See, MPEP 2123.

(10) Response to Argument

A. The Rejection Under 35 U.S.C. § 103(a) Based on Armstrong et al. ("WebWatcher: A Learning Apprentice for the World Wide Web," 1995) in View of Pant et al. (U.S. Patent No. 6,012,053)

Appellant argues "*Armstrong et al. and Pant et al. do not disclose or suggest modifying an identified document, that is stored on a server in a network, based on scores determined for a plurality of the links in the identified document, where the modifying includes reordering at least two of the links in the identified document based on the determined scores, or sorting at least two of the links in the identified document based on the determined scores, as recited in claim 39.*" (Brief, page 11)

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Appellant argues "*Pant et al. does not disclose or suggest modifying an identified document, that is stored on a server in a network, based on scores determined for a plurality of the links in the identified document, where the modifying includes reordering at least two of the links in the identified document based on the*

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determined scores, or sorting at least two of the links in the identified document based on the determined scores, as recited in claim 39.” (Brief, page 12)

The Examiner disagrees.

First and foremost, the Examiner's rejection (35 USC 103(a)) is based on a combination of references. Thus Pant is not required to disclose each limitation of the claim. The Examiner cites Armstrong as modifying an identified document that is stored on a server in a network. Armstrong discloses the WebWatcher finds hyperlinks on the page/document, which is stored on a server, that are strongly recommended by its search control knowledge. WebWatcher then highlights the most promising links and sends this modified copy of the return page to the user (section 2; Fig. 4).

Pant teaches *based on scores determined for a plurality of the links in the identified document, where the modifying includes reordering at least two of the links in the identified document based on the determined scores, or sorting at least two of the links in the identified document based on the determined scores* (col. 2, lines 25-43; col. 3, lines 56-63; Fig. 7; Fig. 9; Pant teaches a sorting module which sorts/reorders the search results (links) of a search query in an order ranked according to their relevance score and provides the results to the user.).

Therefore at the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Armstrong with Pant for the benefit of providing a mechanism through which results from a search query are ranked according to the

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user-specified relevance factors to allow the user to control how the search resulted are ordered and presented (col. 1, lines 53-56). Stated differently, it would have been obvious to one of ordinary skill in the art to modify Armstrong's WebWatcher teaching of identifying a document stored on a server, which contain links with Pant teaching of scoring and sorting or reordering the links of a document for the benefit of obtaining the claim invention.

Appellant argues "the Examiner's reasons for combining the disclosures of *Armstrong et al.* and *Pant et al.* lack merit. *Armstrong et al.* has nothing to do with results from a search query. Rather, *Armstrong et al.* discloses a WebWatcher that determines which hyperlinks in a web page a user should take, and modifies the web page to highlight these links. Page 3, left column, 2nd paragraph. Thus, contrary to the Examiner's allegation, it would not make sense to modify the *Armstrong et al.* system to provide a mechanism through which results from a search query are ranked according to user-specified relevance factors to allow the user to control how the search resulted are ordered and presented. Appellants submit that the opposite would be true -- there is no viable reason to incorporate the alleged features of *Pant et al.* into the system of *Armstrong et al.*" (Brief, page 12)

The Examiner disagrees.

Armstrong discloses WebWatcher interactively helps user locate desired information by employing learned knowledge about which hyperlinks are likely to lead to the target information. (Abstract). Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge, Then highlights the most promising links and sends this modified copy of the return page to the user (section 2; Fig. 4). Stated differently, Webwatcher searches a webpage/document by examining the links on the document to determine if the link leads to the information the user desires. If the desired information is found, WebWatchers highlights the promising hyperlinks on the user's display. Using the broadest reasonable interpretation, the examiner concludes the highlights the promising hyperlinks implicitly teaches a scoring process. Further as Webwatcher returns a copy of the document with highlighted links, it can be interpreted Webwatcher's search results.

As explicitly discloses Pant teaches ranking search results (links) of a search query based on the score of the links and displaying the search results to the user. Both references clearly are in the same field of endeavor.

Thus the Examiner concludes Appellant argument is without merit as the Examiner has clearly proven a viable reason to incorporate the features of Pant et al. into the system of Armstrong et al.

Appellant argues "Claims 44 and 45 depend from claim 39. Claims 44 and 45 are, therefore, patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 39." (Remarks page 13)

The Examiner disagrees.

Therefore for the at least reason due to their dependency of claim 39, claims 44 and 45 remains rejected based on the same rationale as given concerning claim 39.

Appellant argues "*claim 41 depends from claim 39. Therefore, claim 41 is patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 39.*" (Remarks page 14) Further Appellant argues "*Armstrong et al. does not disclose or suggest determining a score for each of the linked documents based on the scores of the one or more linking documents, as recited in claim 41.*" (Remarks page 15)

The Examiner disagrees.

First of all, for the at least reason due to the dependency of claim 39, claim 41 remains rejected based on the same rationale as given concerning claim 39. Furthermore, as previous stated Armstrong discloses the WebWatcher finds hyperlinks on the page/document that are strongly recommended by its search control knowledge (section 2; Fig. 4). The Examiner concludes that the WebWatcher program would implicitly have a mechanism in place to determine scores for a plurality of the links in

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the identified document in order to determine which links/documents to strongly recommend. Therefore in order for WebWatcher to "strongly" recommend a hyperlink, there would be a mechanism in place to determine the relevance of the searched links and the recommended (highlighted) hyperlink would be determined by it's score.

Appellant argues *"claim 46 depends from claim 39. Therefore, claim 46 is patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 39."* Further Appellant argues *"Pant et al. do not disclose or suggest deleting one of the links from the identified document when the determined score for the one of the links falls below a threshold, as recited in claim 46."* (Remarks page 17)

The Examiner disagrees.

First of all, for the at least reason due to the dependency of claim 39, claim 46 remains rejected based on the same rationale as given concerning claim 39.

Pant teaches results based on a score and a relevance factor of words matched in a query. A change in the relevance factor does not change the search and number of hits, but the presentation of the results differs (col. 13, lines 9-31). Stated differently, using the broadest reasonable interpretation, regardless of the relevance factor, the result of the search, which is determined by the number of hits found during the search, will be the same. However only links with scores above an established threshold will be displayed to the user. Links which fall below the threshold will be deleted from the identified document.

Appellant argues relating to independent claim 52 are substantially the same as those concerning claim 46 (Remarks, pages 18-19) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 46.

Appellant argues *"Claims 56 and 57 depend from claim 52. Claims 56 and 57 are, therefore, patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 52. Reversal of the rejection of claims 56 and 57 is respectfully requested."* (Remarks page 19)

The Examiner disagrees.

For the at least reason due to the dependency of claim 52, claims 56 and 57 remains rejected based on the same rationale as given concerning claim 52.

Appellant argues *"claim 53 depends from claim 52. Therefore, claim 53 is patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 52."*

(Remarks, page 20) Further Appellant argues Appellant argues relating to claim 53 are

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substantially or identical the same as those concerning claim 41 (Remarks, page 20) and therefore remain rejected for the at least reason based on the same rationale as given concerning claims 41 and 52.

Appellant argues *"claim 58 depends from claim 52. Therefore, claim 58 is patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 52."* Further Appellant argues *"The Examiner alleged that Armstrong et al. discloses providing an identified document with additional information and cited section 2 and Figure 4, of Armstrong et al. for support, and alleged that Pant et al. discloses determining that the score for one of the links does not fall below a threshold and cited column 13, lines 9-31, of Pant et al. for support. Office Action, pages 11-12. Appellants submit that the Examiner is improperly dissecting a single claim feature into portions that the Examiner alleged are disclosed by separate references. Such a dissection is improper and falls short of establishing a prima facie case of obviousness with regard to claim 58."*

(Remarks, page 21)

The Examiner reminds Appellant that claim 58 is rejection is based on a 35 USC 103 type rejection. The Examiner further reminds Appellant that obviousness can be shown by combining references within a 35 USC 103 rejection. See MPEP

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Appellant argues “Armstrong et al. and Pant et al. do not disclose or suggest means for providing, to a user, an identified document, which is identified based on an address associated with the document, with additional information regarding the linked document pointed to by one of a plurality of links in the identified document, as recited in claim 59.” (Remarks page 24)

The Examiner disagrees.

Armstrong teaches WebWatcher could be made to search several pages ahead by following it's own advice while waiting for the user input. It encounters an especially promising page while searching ahead, it might suggest to the user jump directions to this page rather than follow tediously along the path that the agent has already traversed. Thus Armstrong discloses providing additional information regarding the linked document pointed to by one of a plurality of links in the identified document.

Appellant argues “*Claims 64-66 depend from claim 59. Claims 64-66 are, therefore, patentable over Armstrong et al. and Pant et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 59. Reversal of the rejection of claims 56 and 57 is respectfully requested.*” (Remarks page 26)

The Examiner disagrees.

For the at least reason due to their dependency of claim 59, claims 64-66 remains rejected based on the same rationale as given concerning claim 59.

Appellant argues relating to dependent claim 60 are substantially the same as those concerning claim 46 (Remarks, page 27) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 46.

Appellant argues relating to dependent claim 61 are substantially the same as those concerning claim 41 (Remarks, page 28) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 41.

B. The Rejection Under 35 U.S.C. § 103(a) Based on Arthurs (U.S. Patent No. 6,591,261) in View of Pant et al. (U.S. Patent No. 6,012,053)

Appellant argues *“Arthurs does not disclose or remotely suggest determining a score for one of the links in a document corresponding to a selected search result based on a degree of match between the search query and a content of a linked document pointed to by the one of the links, as recited in claim 47.”* (Remarks, Page 30)

The Examiner disagrees.

Arthurs discloses a search result which displays sites/hyperlinks that are rank according to scores. The score is determined based in which relevance/weight or score is determined based on the frequency and location that a word resides on the web

page. Upon user selecting a particular displayed website/hyperlink from the search result, common sites to the selected website/hyperlink and the search arguments are displayed to the user (col. 8, lines 1-63) Thus Arthurs discloses determining a score for one of the links in a document corresponding to a selected search result based on a degree of match between the search query and a content of a linked document pointed to by the one of the links.

Appellant argues "*Pant et al. does not disclose or suggest reordering the links in a document, corresponding to a selected search result, based on the determined scores, as recited in claim 48.*" (Remarks, Page 32)

The Examiner disagrees.

Pant teaches a sorting module which sorts/reorders the search results (links) of a search query in an order ranked according to their relevance score and provides the results to the user (col. 2, lines 25-43; col. 3, lines 56-63; Fig. 7; Fig. 9;).

Appellant argues relating to dependent claim 49 are substantially the same as those concerning claim 48 (Remarks, pages 33-34) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 48.

Appellant argues "*Pant et al. does not disclose or suggest changing at least one visual characteristic of one of the links within a document, corresponding to a selected*

search result, based on the determined score, as recited in claim 50." (Remarks, Page 32)

The Examiner disagrees.

Pant teaches a sorting module which sorts/reorders the search results (links) of a search query in an order ranked according to their relevance score and provides the results to the user. Pant also teaches results of a query can change based on the s relevance factor used. Stated differently, a hyperlink may appear in a search result document based on a particular relevance factor and not be displayed based on another. Using the broadest interpretation, the Examiner concludes the *link* can change from visible to invisible as the user no longer have access that the link (col. 2, lines 25-43; col. 3, lines 56-63; Fig. 7; Fig. 9; col. 13, lines 9-30).

Appellant argues "Arthurs does not disclose deleting one of the links from a document, corresponding to a selected search result, when the determined score for the one of the links falls below a threshold, as recited in claim 51." (Remarks, Page 36)

The Examiner disagrees.

Arthurs disclose the association database is pared or culled to contain only associated sites that are deemed to meet or exceed a particular threshold. Each web site of the search result is retrieved from information stored in the associated database. The weight or score for the retrieved web sites is based upon the relationship values in the association database for each determined relationship for that site. In other words each relationship identified for the retrieved site increments the weight of the score.

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Thus any web sites that fall below the particular threshold are not displayed on the search display. Therefore the Examiner concludes Arthurs implicitly teaches deleting one of the links from a document, corresponding to a selected search result, when the determined score for the one of the links falls below a threshold.

C. The Rejection Under 35 U.S.C. § 103(a) Based on Armstrong et al. ("WebWatcher: A Learning Apprentice for the World Wide Web," 1995) in View of Pant et al. (U.S. Patent No. 6,012,053) and Page (U.S. Patent No. 6,285,999)

Appellant argues "*Armstrong et al., Pant et al., and Page do not disclose or suggest determining a score for each of the linked documents based on a clickthrough rate for each of the linked documents, as recited in claim 42. The Examiner admitted that Armstrong et al. and Pant et al. do not disclose or suggest this feature, but alleged that Page discloses determining the popularity of a document. Office Action, page 23. The Examiner alleged that determining a clickthrough rate is equivalent to determining the popularity or how many hits the documents has had by other links linking to the document and determining how important that document is. Office Action, page 23. Appellants submit that this is an unreasonable allegation based solely on a flawed attempt to reconstruct the claimed invention using impermissible hindsight.*" (Remarks, Pages 38-39)

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

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any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellant argues "Claim 43 depends from claim 39. The disclosure of Page does not cure the deficiencies in the disclosures of Armstrong et al. and Pant et al. identified above with regard to claim 39. Claim 43 is, therefore, patentable over Armstrong et al, Pant et al, and Page, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 39. For at least these reasons, it is respectfully submitted that claim 43 is patentable over Armstrong et al., Pant et al., and Page, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103."
(Remarks, Pages 39-40)

The Examiner disagrees.

Therefore for the at least reason due to the dependency of claim 39, claims 43 remains rejected based on the same rationale as given concerning claim 39.

Appellant argues relating to dependent claim 54 are substantially the same as those concerning claim 42 (Remarks, pages 40-41) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 42.

Appellant argues "Claim 55 depends from claim 52. The disclosure of Page does not cure the deficiencies in the disclosures of Armstrong et al. and Pant et al. identified above with regard to claim 52. Claim 55 is, therefore, patentable over Armstrong et al., Pant et al., and Page, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 52.

For at least these reasons, it is respectfully submitted that claim 55 is patentable over Armstrong et al., Pant et al., and Page, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 55 is respectfully requested." (Remarks page 41)

The Examiner disagrees.

For the at least reason due to the dependency of claim 52, claim 55 remains rejected based on the same rationale as given concerning claim 55.

Appellant argues relating to dependent claim 62 are substantially the same as those concerning claim 54 (Remarks, pages 42-43) and therefore remain rejected for the at least reason based on the same rationale as given concerning claim 54.

Appellant argues "Claim 63 depends from claim 59. The disclosure of Page does not cure the deficiencies in the disclosures of Armstrong et al. and Pant et al. identified above with regard to claim 59. Claim 63 is, therefore, patentable over Armstrong et al., Pant et al., and Page, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 59.

For at least these reasons, it is respectfully submitted that claim 63 is patentable over Armstrong et al., Pant et al., and Page, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 63 is respectfully requested." (Remarks page 43)

The Examiner disagrees.

For the at least reason due to the dependency of claim 59, claim 63 remains rejected based on the same rationale as given concerning claim 59.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/JAMES J. DEBROW/

JAMES DEBROW
EXAMINER
ART UNIT 2176

Conferees:

/Doug Hutton/
Doug Hutton
Supervisory Primary Examiner
Technology Center 2100

STEPHEN HONG

/Stephen S. Hong/

Supervisory Patent Examiner, Art Unit 2178